

REMARKS

Claims 1, 3, 4, 7, 8, 10-12, 14, 17, and 18 remain pending in this application. Claims 2, 15, 16, and 19-23 have been canceled, without prejudice or disclaimer of subject matter. Claims 1, 17, and 18, the independent claims, have been amended to define more clearly what Applicant regards as his invention. Favorable reconsideration is requested.

Claims 1, 7, 8, 15, 17, and 18 were rejected under 35 U.S.C. 103(a) as being obvious from U.S. Patent 6,735,740 to Sakai in view of U.S. Patent 5,260,810 to Kanno, U.S. Patent No. 5,465,307 (Azumaya), U.S. Patent 5,953,464 to Harrington, and U.S. Patent 5,838,839 to Seki; Claims 2-4 and 10-11, as being obvious from Sakai in view of Kanno, Azumaya, Harrington, Seki, and U.S. Patent 5,392,137 to Okubo; Claim 12, as being obvious from Sakai in view of Kanno, Azuyama, Harrington, Seki, and U.S. Patent 5,729,664 to Ishikawa; Claim 14, as being obvious from Sakai in view of Kanno, Azuyama, Harrington, Seki, and U.S. Patent 5,719,967 to Sekine; Claims 16, 19, and 20, as being obvious from Sakai in view of Kanno, Azuyama, and Okubo; and Claims 21-23, as being obvious from Sakai in view of Kanno, and U.S. Patent 6,005,989 to Frederic.

First, cancellation of Claims 2, 15, 16, and 19-23 renders the rejections of those claims moot.

Claim 1 is directed to an image processing apparatus including input means, generating means, first and second pixel density converting means, and output means. The input means inputs color image data, and the generating means generates flag data indicating an attribute of an image corresponding to the color image data from the color

image data, with respect to each pixel of the image. The flag data is indicative of a character, a figure or a mesh with respect to each pixel of the image. The first pixel density converting means pixel-density converts the image data at a designated magnification, and the second pixel density converting pixel-density converts the flag data in accordance with the designated magnification. The output means makes a process of the pixel density converted image data different every pixel in accordance with the flag data and outputs the processed image data. A pixel converting method of the first pixel density converting means is different from a pixel converting method of the second pixel density converting means. The second pixel density converting means makes a converting method different in accordance with attributes of the flag data. The second pixel density converting means performs a logical arithmetic operating process of flag values using a plurality of pixels near a target pixel when the designated magnification is reduction, and performs a processing using a nearest neighboring pixel of the target pixel when the designated magnification is enlargement.

Among other notable features of Claim 1 are that flag data is indicative of a character, a figure or a mesh, and pixel density conversion for a pixel is made different from that for flag data.

Sakai, as understood by Applicant, relates to document composite image display utilizing categorized partial images. Sakai discusses that image data and its corresponding flag are reduced in size by the same method. More specifically, in Sakai, the partial image R3 shown in Fig. 7 is reduced in the manner indicated by the images L1 to L4 shown in Fig. 20. Here, since the pixels constituting the partial image R3 also

represent the relevant flag, the flag is also reduced in the same manner as for the partial image.

Harrington, as understood by Applicant, relates to intelligent scaling of images stored in low-cost image buffers. Harrington discusses that an image is classified into a smoothed area and an edge, and scaling is independently performed with respect to each of the smoothed area and the edge. More specifically, in Harrington, the image shown in Fig. 4(B) is enlarged to the image shown in Fig. 5(B). Here, the pixel “1” at the lower right of Fig. 4(B) is enlarged to the four pixels at the lower right of Fig. 5(B), but all of these four pixels do not become “1”; that is, the values of these pixels are partially changed as shown in Fig. 5(B) in consideration of jagged edges.

The general nature of Kanno, Azumaya, and Seki has been discussed adequately in previous papers, and it is not believed to be necessary to repeat that discussion.

Nothing in Sakai, Kanno, Azumaya, Harrington, and Seki, whether considered either separately or in any permissible combination (if any) would teach or suggest an image processing apparatus in which pixel density conversion for a pixel is made different from that for flag data, as recited in Claim 1.

In the image processing apparatus of Claim 1, flag data is indicative of a character, a figure or a mesh, and density converting for a pixel is made different from density conversion for flag data. Nothing in the cited prior art would teach or suggest these features.

As conceded in the Office Action, Sakai merely discusses that image data

and its corresponding flag are reduced in size by the same method. Further, Harrington merely discusses density conversion for the pixels; that is, Figs. 4 and 5 merely illustrate that density conversion for the pixels is performed.

Accordingly, even if assuming *arguendo* that a combination of Sakai, Kanno, Azumaya, Harrington, and Seki would even be permissible, such a combination would not teach or suggest the image processing apparatus of Claim 1.

Nothing in Sakai, Kanno, Azumaya, Harrington, and Seki, whether considered either separately or in any permissible combination (if any) would teach or suggest an image processing apparatus in which flag data is indicative of a character, a figure or a mesh, and pixel density conversion for a pixel is made different from that for flag data, as recited in Claim 1.

Accordingly, Claim 1 is seen to be clearly allowable over Sakai, Kanno, Azuyama, Harrington, and Seki, whether considered separately or in any permissible combination (if any).

Independent Claims 17 and 18 each recite features which are similar in many relevant respects to those discussed above with respect to Claim 1 and therefore are also believed to be patentable over Sakai, Kanno, Azuyama, Harrington, and Seki for at least the reasons discussed above.

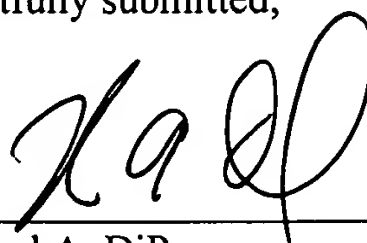
A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Ra DiPerna', written over a horizontal line.

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